

WHAT IS CLAIMED IS:

1. A dot matrix printer, having adaptive printer control functions responsive to the type of printer ink cartridge being used the printer comprising:

a) a printer ink cartridge disposable within the printer, the cartridge having a resistive ink identifier disposed on a surface thereof;

b) contacts disposed within the printer and engageable to the resistive ink identifier;

c) sensor circuitry disposed in the printer in electrical communication with the contacts, operative to sense the resistive valve of the resistive ink identifier; and

d) printer control circuitry in electrical communication with the sensor circuitry, operative to selectively regulate printer operation in response to the sensed resistive valve of the resistive ink identifier.

2. The dot matrix printer of Claim 1, further comprising a memory in electrical communication with the printer control circuitry, operative to store printer control information corresponding to that least one operational parameter specific to the ink cartridge being used.

3. The dot matrix printer of Claim 1, further comprising printer usage circuitry, printer usage circuitry being operative to monitor printer usage, the printer control circuitry being operative to regulate printing functions in response to the printer usage.

4. The dot matrix printer of Claim 1, further comprising a display in electrical communication with the printer control circuitry, operative to display printer usage data.

5. The dot matrix printer of Claim 1, further comprising an alarm device in electrical communication with the printer control circuitry, operative to generate an

alarm when printer usage reaches a threshold level.

6. The dot matrix printer of Claim 1, wherein the printer control circuitry causes print head impact force to be varied on an ongoing basis in response to changes in printer usage data.

7. A tape ribbon cartridge for a dot matrix printer with ink capacity indicator comprising:

- a) a housing;
- b) an ink ribbon contained disposed within the housing; and
- c) a resistive ink identifier disposed upon the housing, the resistive valve of the identifier corresponding to at least one characteristic of the ink ribbon.

8. The tape ribbon cartridge of Claim 7, wherein the resistive ink identifier is silk-screened onto the housing.

9. The tape ribbon cartridge of Claim 7, wherein the resistive ink identifier is printed onto a label disposable onto the housing.

10. The tape ribbon cartridge of Claim 7, wherein the resistive ink identifier is color coded to indicate at least one characteristic of the ink ribbon.

11. A method for selectively regulating printer operation of a printer, comprising:

- a) applying a resistive ink identifier to an exterior surface of an ink cartridge, the resistive ink identifier having a resistive valve corresponding to at least one operational characteristic of the ink cartridge;
- b) installing the ink cartridge into a printer;
- c) sensing the resistive valve of the resistive ink identifier; and
- d) selectively regulating printing functions in response to the sensed resistive valve.

12. The method of Claim 11, wherein the resistive valve corresponds to a length of an ink ribbon of the ink

cartridge.

13. The method of Claim 11, wherein the resistive valve corresponds to ribbon material used in the ink cartridge.

14. The method of Claim 11, wherein the resistive valve corresponds to a material of an ink ribbon of the ink cartridge.

15. The method of Claim 11, wherein the resistive ink identifier is silk screened onto the exterior surface of the ink cartridge.

16. The method of Claim 11, wherein the resistive ink indicator is applied to a label that is adherable to the ink cartridge.

17. The method of Claim 11, wherein the resistive valve of the resistive ink identifier is a function of the length of the identifier.

18. The method of Claim 11, wherein the resistive valve of the resistive ink identifier is a function of the width of the identifier.

19. The method of Claim 11, wherein the resistive valve of the resistive ink identifier is a function of material used to form the identifier.

20. The method of Claim 11, wherein the step of correlating the sensed resistive valve with the characteristics of the ink cartridge comprises:

a) communicating data responsive to the sensed resistive valve to a memory; and

b) accessing stored printer control information in the memory, the stored information corresponding to operational parameters specific to the type of cartridge being used;

c) regulating printer operation in response to the stored printer control information.

21. The method of Claim 11, wherein the step of regulating printing functions comprises:

a) sensing printer usage data on an ongoing basis;
and

b) varying printer operation in response to the sensed printer usage data.

22. The method of Claim 21, wherein the step of sensing printer usage data comprises sensing the number of characters which have been printed by the printer.

23. The method of Claim 21, wherein the step of varying printer operation comprises the step of regulating print head impact force in response to sensed printer usage data.